MARKED VERSION OF AMENDED CLAIMS SHOWING CHANGES

1. (four times amended) A method for packaging a semiconductor die to form a semiconductor package comprising:

providing a leadframe configured for wire bonding to the die;

providing a cyanoacrylate adhesive material formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere;

providing a filler in the adhesive material selected to improve a characteristic of the adhesive material in the package;

applying the adhesive material to the leadframe or to the die;

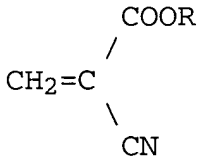
placing the die on the leadframe with the adhesive material in contact with the die and the leadframe to form an adhesive layer therebetween;

curing the adhesive material at the temperature and [at] in the ambient atmosphere in less than about 60 seconds to bond the die to the leadframe;

wire bonding the die to the lead frame; and

encapsulating the die.

2. (four times amended) The method of claim 1 wherein the adhesive material has [a] the formula:



wherein R comprises a hydrocarbon group.

4. (four times amended) The method of claim 1 wherein the leadframe comprises a lead-on-chip leadframe and the filler is selected to increase a dielectric strength of the adhesive layer.

6. (four times amended) A method for packaging a semiconductor die to form a semiconductor package comprising:

providing a leadframe comprising a plurality of lead fingers configured to support the die and [for] configured to provide sites for wire bonding to the die;

providing a cyanoacrylate adhesive material formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere;

providing a filler in the adhesive material selected to improve a dielectric strength [,] of the adhesive material in the package;

applying the adhesive material to the leadframe or to the die;

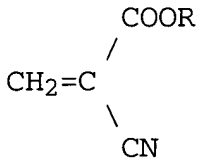
placing the die on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween;

curing the adhesive [layer] material at the temperature and in the ambient atmosphere in less than about 60 seconds;

wire bonding the die to the lead fingers; and

encapsulating the die.

7. (four times amended) The method of claim 6 wherein the adhesive material has [a] the formula:



wherein R comprises a hydrocarbon group.

12. (four times amended) A method for packaging a semiconductor die to form a semiconductor package, comprising:

providing a leadframe comprising a plurality of lead fingers configured for wire bonding to the die;

applying an adhesive material on the lead fingers or on the die, the adhesive material comprising a cyanoacrylate adhesive formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere, and an electrically insulating filler configured to increase a dielectric strength of the adhesive material to inhibit cross talk between the lead fingers in the package;

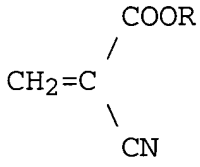
placing the die on the lead fingers with the adhesive material in contact with the die and the lead fingers to form an adhesive layer therebetween;

curing the adhesive [layer] material at the temperature and in the ambient atmosphere in less than about 60 seconds to bond the die to the lead fingers;

wire bonding the die to the lead fingers; and

encapsulating the die.

14. (four times amended) The method of claim 12 wherein the adhesive material has [a] the formula:

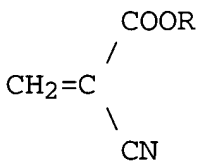


wherein R comprises a hydrocarbon group.

15. (four times amended) A method for packaging a semiconductor die to form a semiconductor package, comprising:

providing a leadframe configured for wire bonding to the die;

providing an adhesive material having [a] the formula:



wherein R is a hydrocarbon group, the adhesive material formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere;

(providing a filler in the adhesive material selected to improve a characteristic of the adhesive layer in the package;)

applying the adhesive material to the leadframe or to the die;

applying a catalyst to the leadframe or to the die;

placing the die on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween;

curing the adhesive layer at the temperature and in the ambient atmosphere in less than about 60 seconds by interaction of the adhesive material with the catalyst to bond the die to the leadframe;

wire bonding the die to the lead frame; and

encapsulating the die.

21. (four times amended) A method for packaging a semiconductor die to form a semiconductor package comprising:

providing a leadframe configured for wire bonding to the die;

providing an adhesive material comprising an anaerobic acrylic formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere;

providing a filler in the adhesive material comprising a material selected from the group consisting of SiO_2, Al_2O_3, AlN, Ag, Ni, Fe, SiC, and polystyrene coated Ni;

applying the adhesive material to the leadframe or to the die;

placing the die on the leadframe with the adhesive material compressed between the die and the leadframe to form an adhesive layer therebetween;

curing the adhesive [layer] material at the temperature and in the ambient atmosphere in less than about 60 seconds to bond the die to the leadframe;

wire bonding the die to the lead frame; and

encapsulating the die.

42. (thrice amended) A method for packaging a semiconductor die to form a semiconductor package, comprising:

providing a leadframe comprising a plurality of lead fingers configured to support the die and configured to provide sites for wire bonding to the die;

providing an adhesive material comprising an anaerobic acrylic formulated to cure in less than about 60 seconds at a temperature of about 20°C to 30°C and [at] in an ambient atmosphere;

(providing a filler in the adhesive material selected to improve a dielectric strength [,] of the adhesive material in the package;)

applying the adhesive material to the die or to the leadframe;

placing the die on the leadframe with the adhesive material in contact with the die and the leadframe to form an adhesive layer therebetween;

curing the adhesive material at the temperature and [at] in the ambient atmosphere in less than about 60 seconds to bond the die to the leadframe;

wire bonding the die to the lead fingers; and

encapsulating the die.